REMARKS/ARGUMENTS

Status of Claims

Claims 1-13 are pending and are under prosecution. Claim 1 has been amended. Support for the amendment to claim 1 can be found throughout the specification; for example, paragraph 0097 and Table 1. Claims 7, 11, 12 and 13 have been amended to more clearly claim the current invention. The Examiner indicates no claims are allowed.

Information Disclosure Statement

The Examiner has acknowledged the information Disclosure Statement submitted on December 19, 2007 and indicates it is being considered.

Claim Rejections Under 35 U.S.C. § 112

Claims 7 and 13 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claim 7 as been amended to depend from Claim 6.

The rejection of Claims 1-10 and 13 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement, made in the Office Action mailed August 23, 2007 is maintained for the reasons already of record.

The Examiner states, "The present enablement rejection is based on the large breadth of the claims which cover a method of predicting a ***death of a human being based on the length of a telomere***, the death of which is not associated with any kind of conditions, such as infectious diseases or physical ailing conditions." Office action, page 4 (emphasis added). Applicant respectfully submits that the Examiner is not accurately characterizing the invention as currently claimed.

The invention as currently claimed is directed towards a method for determining the ***mortality rate*** of an organism by determining telomere length of a somatic cell of an organism and correlating the telomere length with mortality rate associated with somatic cell telomere length in a population of the organism. Mortality rate has been defined as the "measure of the ***number of deaths*** (in general, or due to a specific cause) in some population, scaled to the size of the population, per unit time." *See* www.wikipedia.org, definition of mortality rate (emphasis added). The invention does not predict a death of a human being based on the length of a telomere as characterized by the Examiner.

In addition, Applicant respectfully submits that the Examiner is not accurately characterizing the data supporting enablement of the invention as currently claimed. The Examiner states, "Figure 4 shows that evidences (sic) that a significant population of people with 'shorter' telomere length lives as long as those with 'longer' telomere lengths. Around 15th year after blood draw, about 20% lesser number of people who were designated as having shorter telomere length were living when compared to those who were designated as having longer telomere length."

In response, Applicant would draw the Examiner's attention to Table 1 which shows a statistical analysis of the data. The analysis shows a strong correlation between shorter telomere length and mortality rate. As stated in the specification, "The mortality rate from infectious disease was ***eight times higher*** for individuals in the bottom 25% of the TL (telomere length) distribution than for individuals in the top 75%, ***a statistically significant difference***." Specification, paragraph 0099 (emphasis added).

In addition, the invention as currently claimed is fully enabled by the specification. We acknowledge that presently, there is no method that is available in the art that is capable of absolutely predicting how long a person may live. As stated above, the invention as currently claimed draws correlations between telomere lengths and mortality rates; it does not predict how long a particular individual with a particular telomere length will live. There are also examples throughout the specification comparing the telomere lengths of populations with mortality rates. *See* Table 1. The findings of the supporting examples also support enablement of the invention as currently claimed: "Individuals with shorter telomeres had a ***mortality rate*** nearly twice that of individuals with longer telomeres (Table 1)." Specification, paragraph 0097. "Excess mortality risks associated with short vs. long telomeres did not vary by sex (P = 0/878), age at blood draw (P = 0.946), or time since blood draw (P = 0.851)." *Id.*

In light of the above, Applicant respectfully requests the withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. § 103

Applicant acknowledges the withdrawal of all of the previous prior art rejections.

Conclusion

Applicants believe the present application is now in condition for allowance. An early and favorable communication thereof is therefore respectfully requested. If the Examiner believes that a telephone conference would expedite prosecution of the application, please call the undersigned at his direct line 415.442.1255.

Respectfully submitted,

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